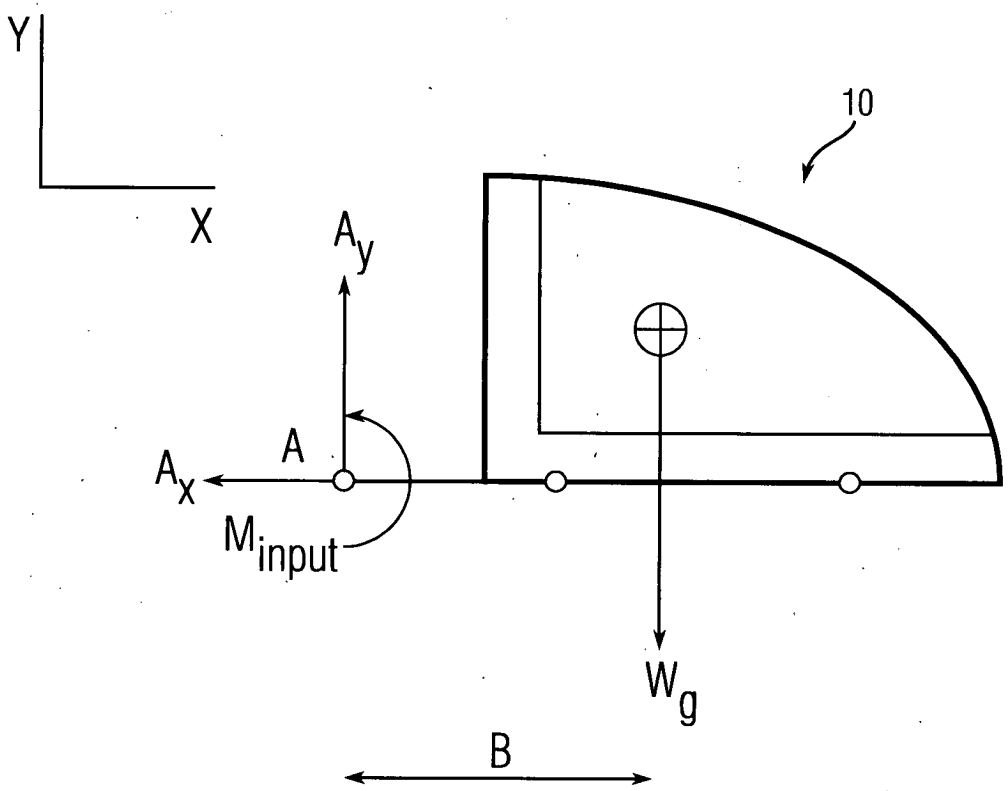


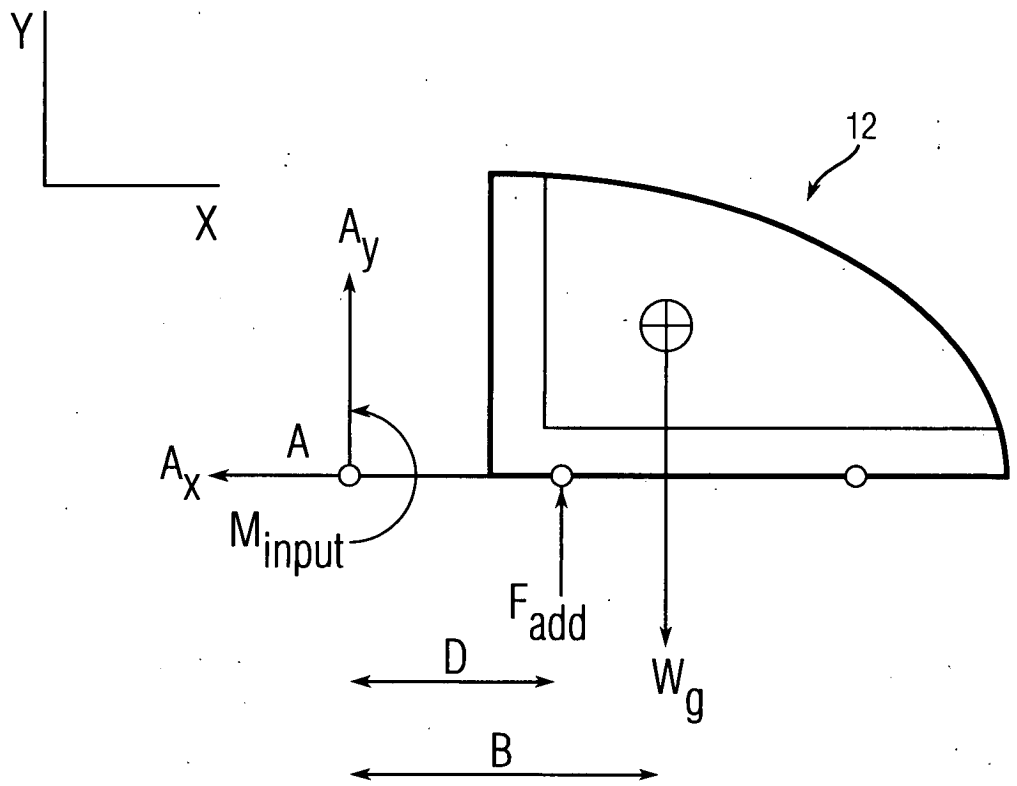
Eq 1: $\sum M_a = I_a \alpha_1$

Eq 2: $\sum M_a = M_{input} - W_g B$

Eq 3: $M_{input} - W_g B = I_a \alpha_1$

Eq 4: $\alpha_1 = \dfrac{M_{input} - W_g B}{I_a}$

Fig. 1



Eq 5: $\sum M_a = I_a \alpha_2$

Eq 6: $\sum M_a = M_{input} - W_g B + F_{add} D$

Eq 7: $M_{input} - W_g B + F_{add} D = I_a \alpha_2$

Eq 8: $$\alpha_2 = \frac{M_{input} - W_g B + F_{add} D}{I_a}$$

Fig. 2

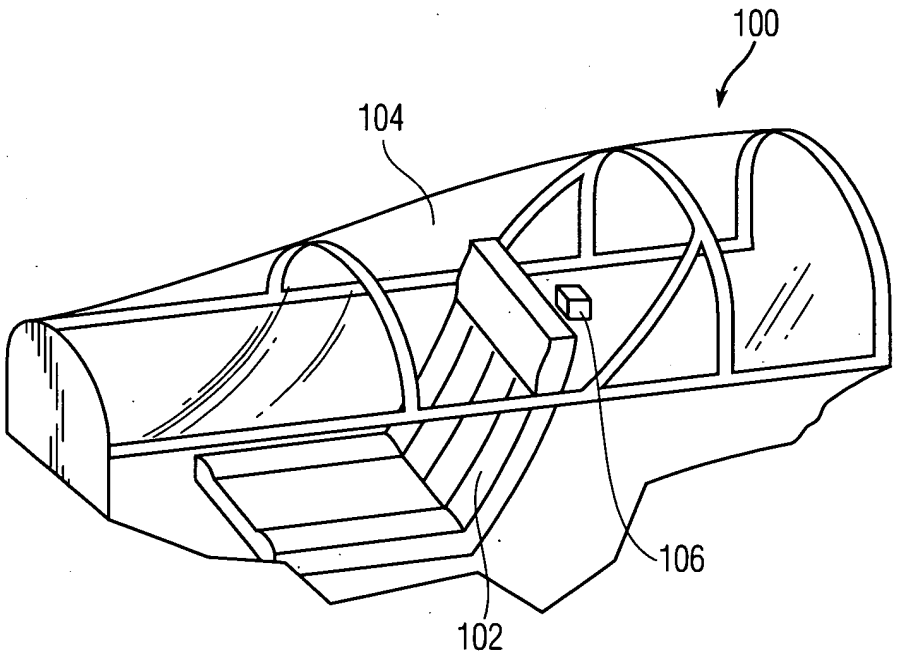
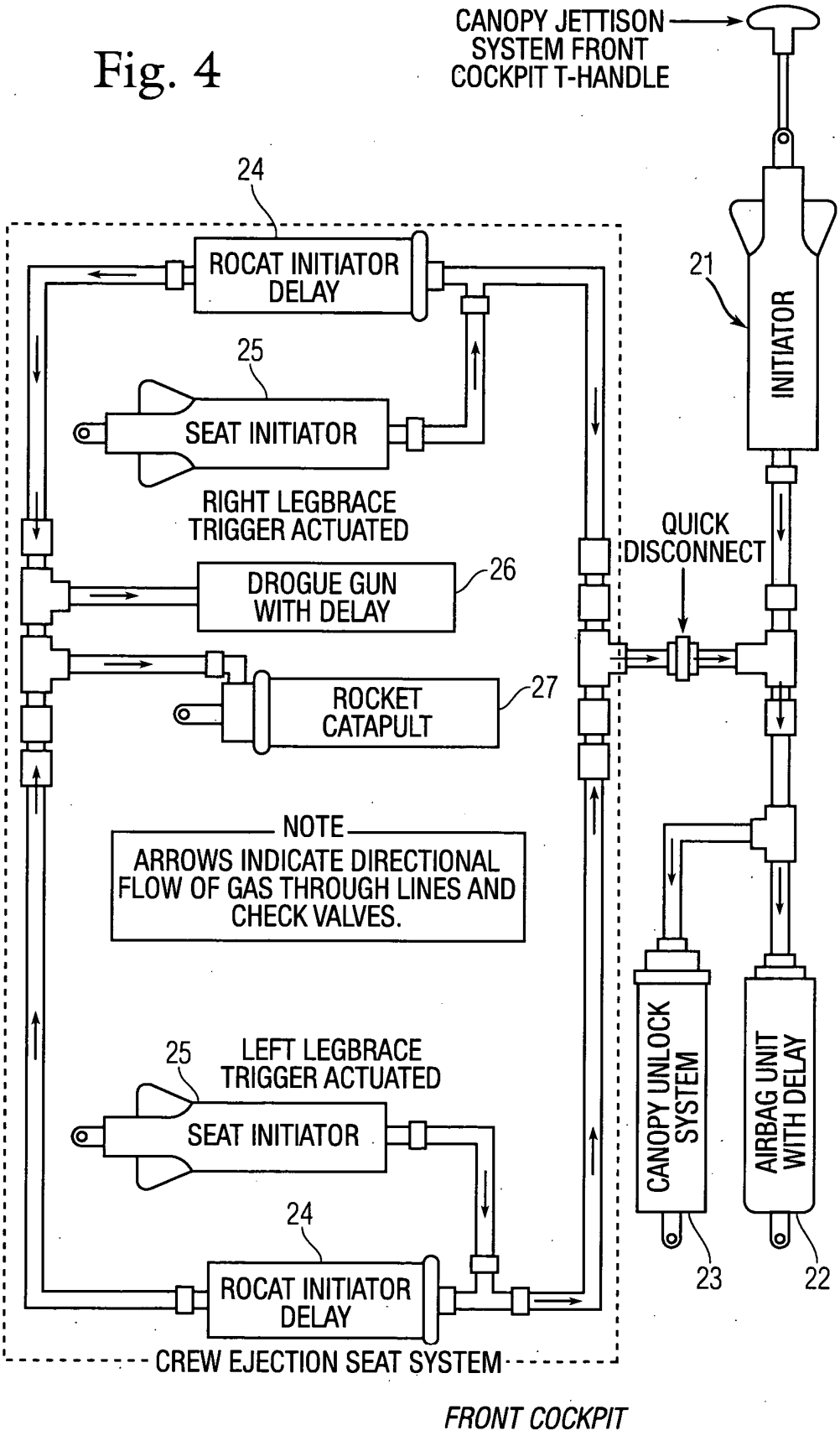


Fig. 3

Fig. 4


CANOPY JETTISON SYSTEM FRONT COCKPIT T-HANDLE
24
ROCAT INITIATOR DELAY
21
INITIATOR
25
SEAT INITIATOR
RIGHT LEGBRACE TRIGGER ACTUATED
QUICK DISCONNECT
DROGUE GUN WITH DELAY
26
ROCKET CATAPULT
27
NOTE
ARROWS INDICATE DIRECTIONAL FLOW OF GAS THROUGH LINES AND CHECK VALVES.
25
LEFT LEGBRACE TRIGGER ACTUATED
SEAT INITIATOR
CANOPY UNLOCK SYSTEM
AIRBAG UNIT WITH DELAY
24
ROCAT INITIATOR DELAY
23
22
CREW EJECTION SEAT SYSTEM
FRONT COCKPIT

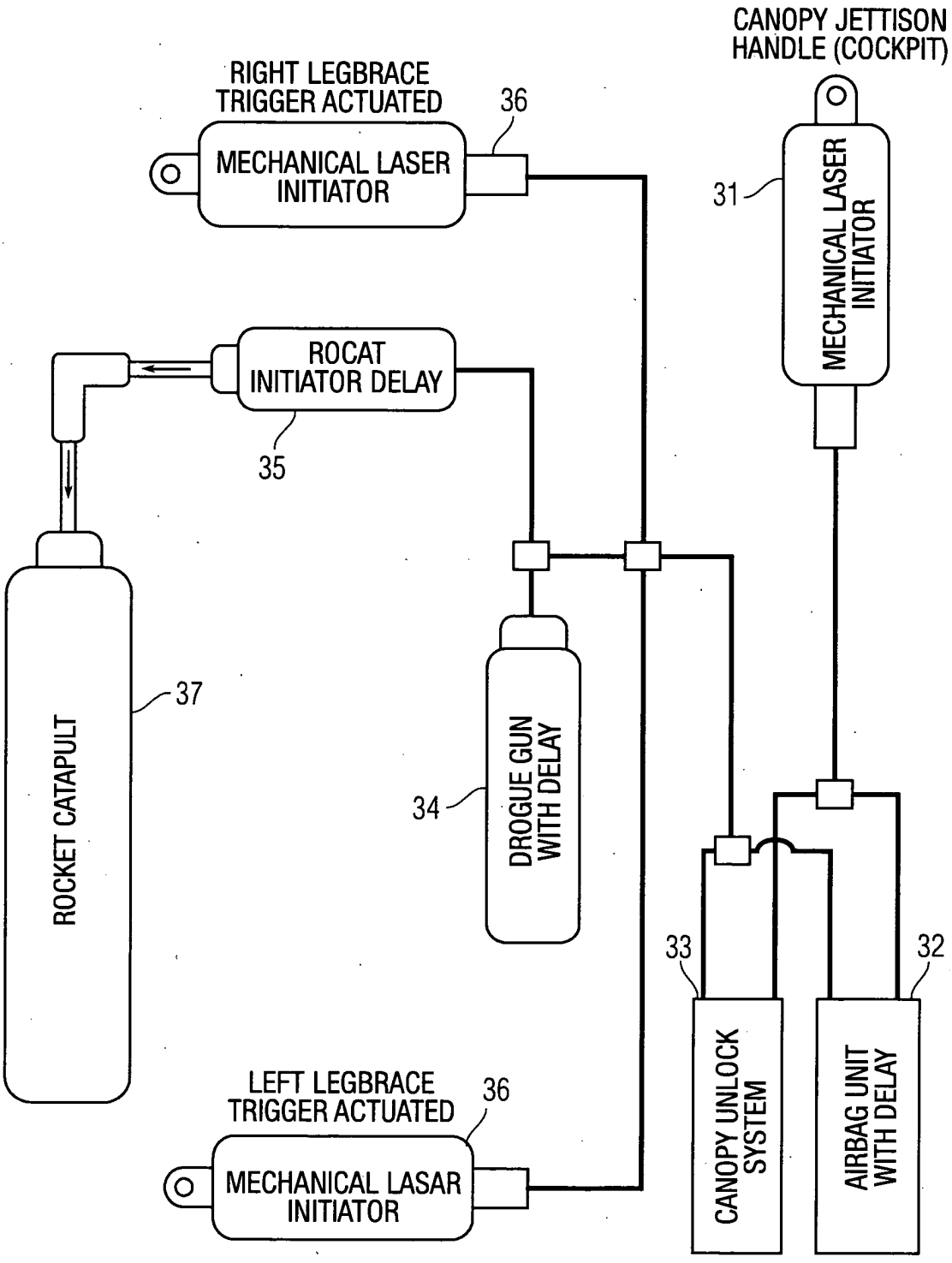

CANOPY JETTISON HANDLE (COCKPIT)
RIGHT LEGBRACE TRIGGER ACTUATED
36
MECHANICAL LASER INITIATOR
31
MECHANICAL LASER INITIATOR
ROCAT INITIATOR DELAY
35
ROCKET CATAPULT
37
DROGUE GUN WITH DELAY
34
33
32
CANOPY UNLOCK SYSTEM
AIRBAG UNIT WITH DELAY
LEFT LEGBRACE TRIGGER ACTUATED
36
MECHANICAL LASAR INITIATOR

Fig. 5

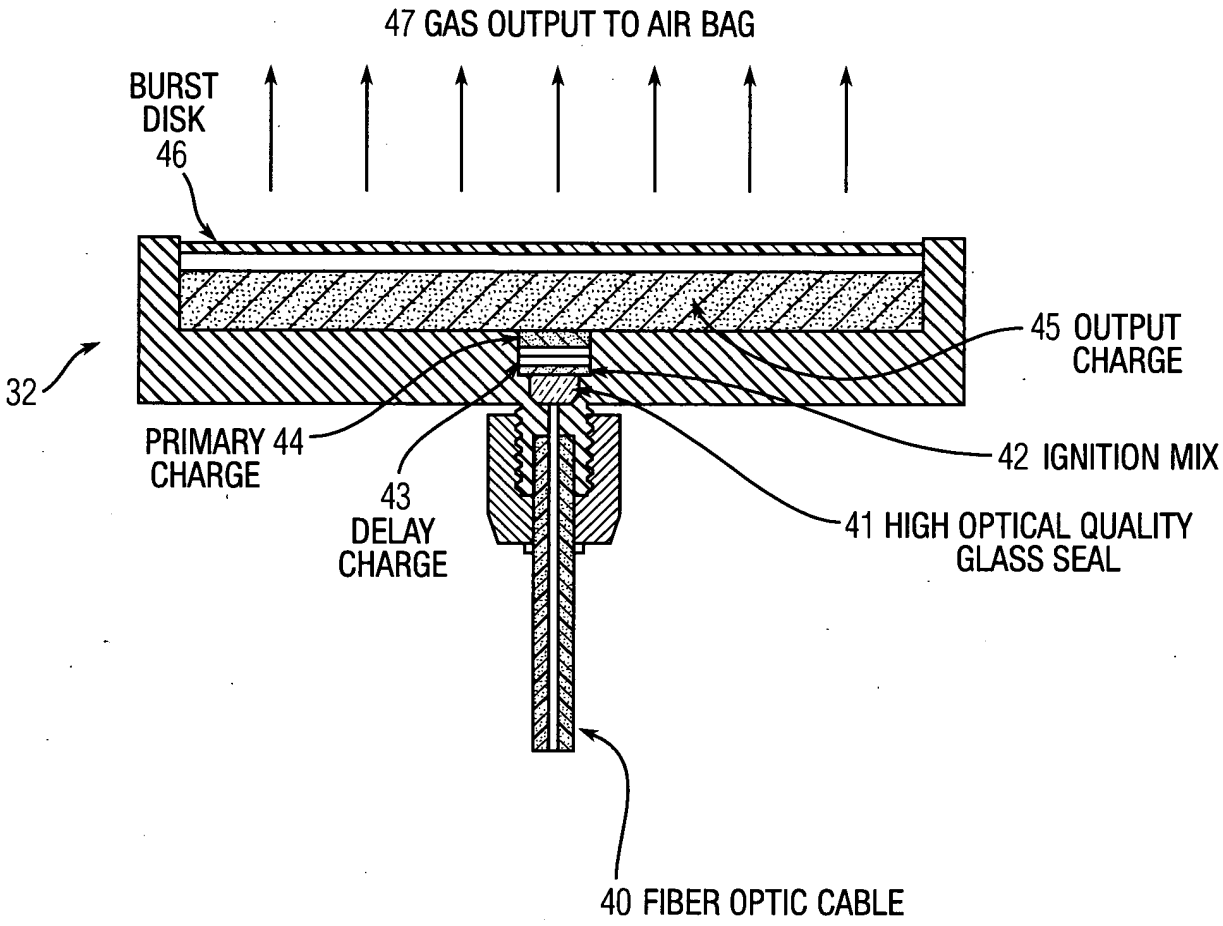

47 GAS OUTPUT TO AIR BAG
BURST DISK 46
32
45 OUTPUT CHARGE
PRIMARY 44 CHARGE
43 DELAY CHARGE
42 IGNITION MIX
41 HIGH OPTICAL QUALITY GLASS SEAL
40 FIBER OPTIC CABLE

Fig. 6

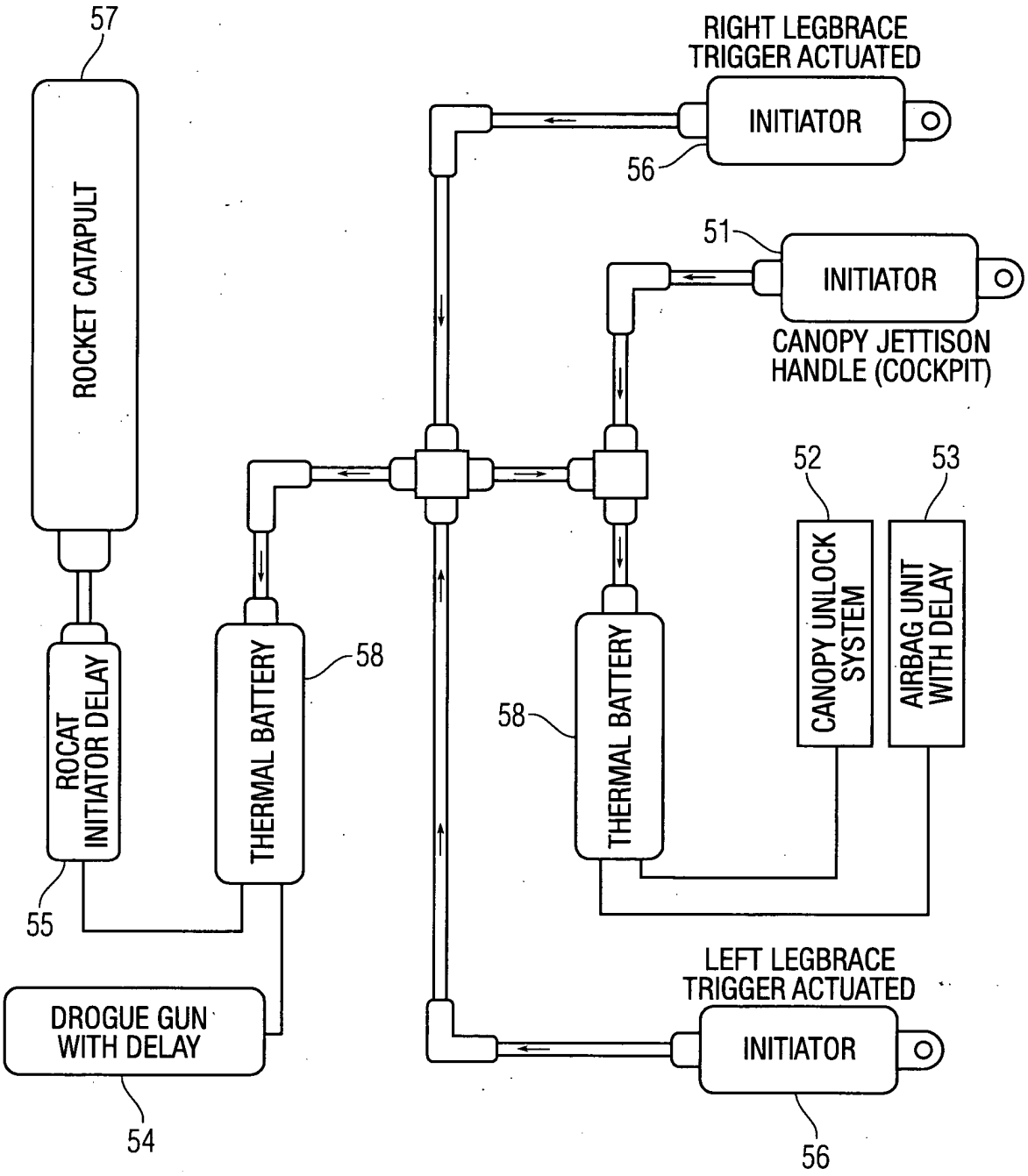

57
ROCKET CATAPULT
RIGHT LEGBRACE
TRIGGER ACTUATED
INITIATOR
56
51
INITIATOR
CANOPY JETTISON
HANDLE (COCKPIT)
52
53
CANOPY UNLOCK
SYSTEM
AIRBAG UNIT
WITH DELAY
ROCAT
INITIATOR DELAY
55
THERMAL BATTERY
58
58
THERMAL BATTERY
LEFT LEGBRACE
TRIGGER ACTUATED
INITIATOR
56
DROGUE GUN
WITH DELAY
54

Fig. 7

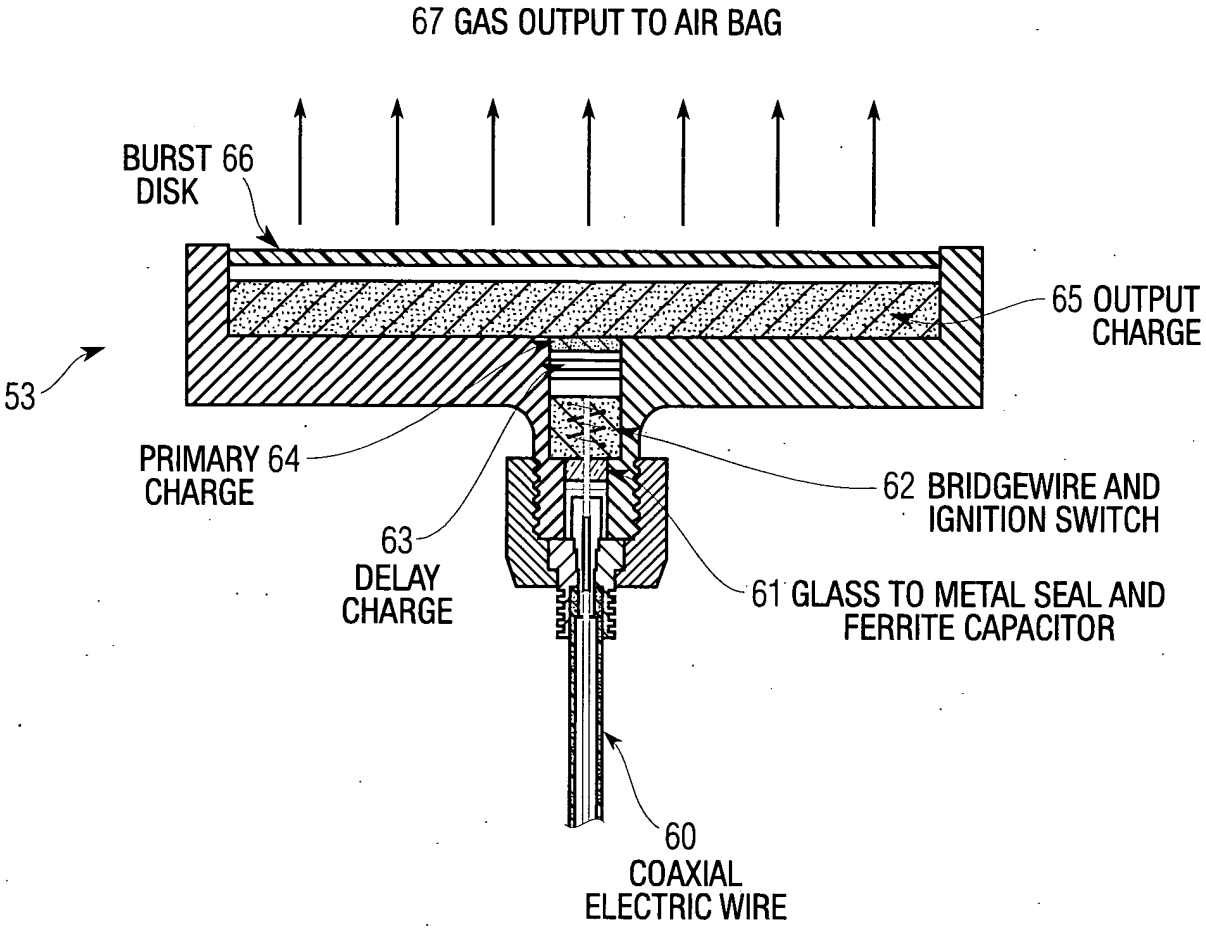

67 GAS OUTPUT TO AIR BAG
BURST 66
DISK
65 OUTPUT
CHARGE
53
PRIMARY 64
CHARGE
62 BRIDGEWIRE AND
IGNITION SWITCH
63
DELAY
CHARGE
61 GLASS TO METAL SEAL AND
FERRITE CAPACITOR
60
COAXIAL
ELECTRIC WIRE

Fig. 8